FILE NOTATIONS

Entered in N I D File	✓	Checked by Chief	✓
Entered On S R Sheet	✓	Copy N I D to Field Office	✓
Location Map Pinned	✓	Approval Letter	✓
Card Indexed	✓	Disapproval Letter	
I W R for State or Fee Land			

COMPLETION DATA:

Date Well Completed	11-20-58	Location Inspected	
OW	WW	TA	Bond released
GW	OS	PA X	State of Fee Land

LOGS FILED

Driller's Log 12-19-58

Electric Logs (No.) 2

E | I | E-I ✓ | GR | GR-N | Micro

Lat ✓ | Mi-L ✓ | Sonic | Others Radioactivity

Form OGCC-1 (SUBMIT IN DUPLICATE)

LAND:

Fee and Patented ☐
State ☐
Lease No. .....

Public Domain ☒
Lease No. Utah 07262

Indian ☐
Lease No. .....

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION
STATE CAPITOL BUILDING
SALT LAKE CITY 14, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

Notice of Intention to Drill	X	Subsequent Report of Water Shut-off	
Notice of Intention to Change Plans		Subsequent Report of Altering Casing	
Notice of Intention to Redrill or Repair		Subsequent Report of Redrilling or Repair	
Notice of Intention to Pull or Alter Casing		Supplementary Well History	
Notice of Intention to Abandon Well			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

September 17, 1958

Mineral Point USA
Well No. 1 is located 1820 ft. from {XXX / S} line and 660 ft. from {E / XXX} line of Sec. 7

NE/4 SE/4 Sec. 7 (¼ Sec. and Sec. No.) | 26-S (Twp.) | 18-E (Range) | Salt Lake (Meridian)

Wildcat (Field) | Grand (County or Subdivision) | Utah (State or Territory)

The elevation of the ground floor above sea level is 5062 feet. Ungraded.

A drilling and plugging bond has been filed with U. S. Government

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important work, surface formation, and date anticipate spudding-in.)

The approximate casing program is as follows:

650' - 10-3/4" OD Surface casing cemented to surface.
7-5/8" OD Intermediate string if necessary because of lost circulation or water flow.
5" OD Linder if necessary for production.
7" OD Oil String will be used if 7-5/8" not required.

Estimated total depth 7800'.

Principle Objective - Mississippian.

I understand that this plan of work must receive approval in writing by the Commission before operations may be commenced.

Company The Pure Oil Company

Address 1700 Broadway
Denver 2, Colorado

By T. L. Warburton
Title Division Chief Production Clerk

INSTRUCTIONS: A plat or map must be attached to this form showing the location of all leases, property lines, drilling and producing wells, within an area of sufficient size so that the Commission may determine whether the location of the well conforms to applicable rules, regulations and orders.

Form 24—P100—Poco—15M—11-3-43

THE PURE OIL COMPANY
LOCATION REPORT

Date September 17, 1958 A.F.E. No. 242

Division Rocky Mountain Producing District Mineral Point Prospect Lease USA - Utah 07262
Ungraded Gr. Mineral Point USA

Acres 1600 (2400) Lease No. 7980 Elevation 5062 Well No. 1 (Serial No.)

Quadrangle NE SE Sec. 7 Twp. 26-S Rge. 18-E Blk. Dist. Twp.

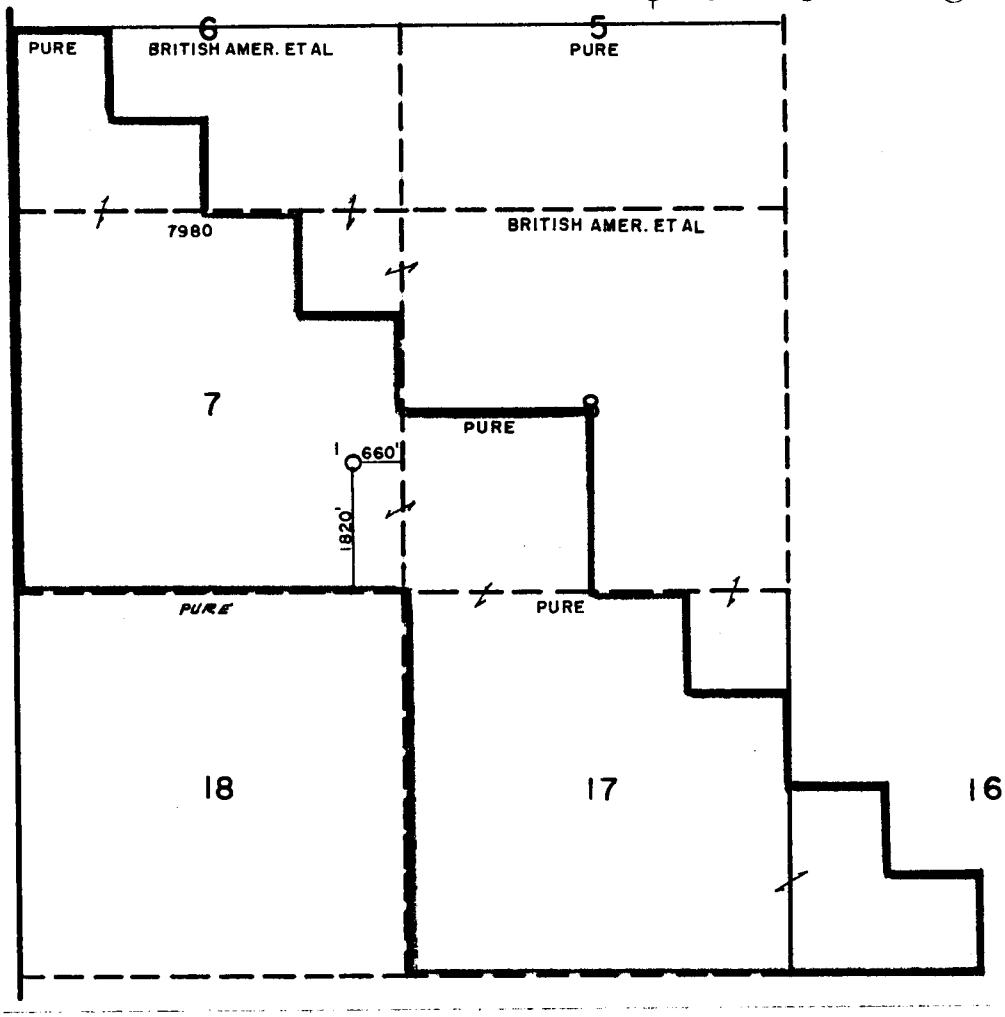
Survey Salt Lake Meridian County Grand State Utah

Operator THE PURE OIL COMPANY Map Utah 3-5

Feet from North Line of Lease
" " East " " "
" " South " " "
" " West " " "
Feet from North Line of Section
660 " " East " " "
1820 " " South " " "
" " West " " "

LEGEND

○ Location	
Gas Well	Dry Showing Gas
Oil Well	Abandoned Location
Gas – Distillate Well	or Abandoned Gas Well
∅ or ○ Dry Hole	or Abandoned Oil Well
Dry Showing Oil	or Input Well



Scale 2" = 1 MILE

Remarks:

Submitted by [signature] Civil Engineer

Approved by Division Manager

Approved by Vice-President - General Manager

September 19, 1958

The Pure Oil Company
1700 Broadway
Denver 2, Colorado

Attention: T. L. Warburton, Division Chief Production Clerk

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. Mineral Point USA 1, which is to be located 1820 feet from the south line and 660 feet from the east line of Section 7, Township 26 South, Range 18 East, SLBM, Grand County, Utah.

Please be advised that insofar as this office is concerned, approval to drill said well is hereby granted.

This approval terminates within 90 days if the above mentioned well is not spudded in within said period.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
SECRETARY

CBF:co

cc: Don Russell
USGS, Federal Bldg.
Salt Lake City

Budget Bureau No. 42-R356.5.
Approval expires 12-31-60.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City
LEASE NUMBER Utah 07262
UNIT

LESSEE'S MONTHLY REPORT OF OPERATIONS

N-H
12-1-58

State Utah County Grand Field Wildcat

The following is a correct report of operations and production (including drilling and producing wells) for the month of October, 19 58

Agent's address 1700 Broadway
Denver 2, Colorado

Company The Pure Oil Company

Signed T. L. Warburton

Phone AMherst 6-3331

Agent's title Division Chief Production Clerk

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
NE¼ SE¼ Sec. 7 (Mineral Point USA)	26S	18E	1							Spudded 9-27-58 and drilled to 700'. Set 10-3/4" OD casing at 678' with 320 sx. cement, 2% Gel, 2% Calcium Chloride and 1/4# Seal Flake per sack. Drilled 700' to 4172'. Set 7-5/8" OD casing at 4170' with 1000 sx. 50-50 Pozmix with 17# salt per sack, 2% Gel, 2% Calcium Chloride and 1/4#Seal Flake per sack. Drilled 4172' to 5598'. Halliburton DST No. 1, 5527'-5598'. Tool open 45 minutes shut in 45 minutes. Opened with fair blow in 5 gallon bucket of water, decreasing to weak blow after 20 minutes, dead after 35 minutes. Recovered 110' slightly gas cut salt water with slight oil rainbow in sample. Pressures: IH 2985, IF 50, FF 50, Final Shut In 50, FH 2960. Drilled 5598' to 5960'.

NOTE.—There were ____ runs or sales of oil; ____ M cu. ft. of gas sold; ____ runs or sales of gasoline during the month. (Write "no" where applicable.)

W/

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25766-8 U. S. GOVERNMENT PRINTING OFFICE

Form 9-331a
(Feb. 1951)

Budget Bureau 42-R358.3.
Approval expires 12-31-55.

Land Office Salt Lake City

Lease No. Utah 07262

Unit

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

N-14
12-1-58

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 5, 19 58

Mineral Point USA
Well No. 1 is located 1820 ft. from {N/S} line and 660 ft. from {E/W} line of sec. 7

NE/4 SE/4 Sec. 7 (¼ Sec. and Sec. No.) 26-S (Twp.) 18-E (Range) Salt Lake (Meridian)

Wildcat (Field) Grand (County or Subdivision) Utah (State or Territory)

The elevation of the ~~derrick floor~~ K.B. above sea level is 5075 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

10-28-58

Halliburton DST No. 1, 5527' - 5598', 71' perforated Anchor. Top hole choke 1/2" to 1" adjustable, bottom hole choke 5/8". Tool open 45 minutes, shut in 15 minutes for Initial Shut In and 30 minutes for Final Shut In. Tool open at 8:00 a.m. with fair blow in 5 gallon bucket of water, decreasing to weak blow after 20 minutes, dead after 35 minutes. Recovered 110' slightly gas cut salt water with slight oil rainbow in samples. (Samples taken from 5 gallon bucket.) Pressures: IH 2985, IF 50, FF 50, Final Shut In 50, FH 2960.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Pure Oil Company

Address 1700 Broadway

Denver 2, Colorado

By [signature]

Title Division Chief Production Clerk

W

U. S. GOVERNMENT PRINTING OFFICE 16—8437-5

Form 9-331a
(Feb. 1951)

Budget Bureau 42-R358.3.
Approval expires 12-31-55.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City
Lease No. Utah 07262
Unit

N-A
12-1-58

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 5, 19 58

Mineral Point USA
Well No. 1 is located 1820 ft. from {N/S} line and 660 ft. from {E/W} line of sec. 7

NE/4 SE/4 Sec. 7 (¼ Sec. and Sec. No.) 26-S (Twp.) 18-E (Range) Salt Lake (Meridian)

Wildcat (Field) Grand (County or Subdivision) Utah (State or Territory)

The elevation of the K.B. above sea level is 5075 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

9-30-58 Spudded September 27, 1958.

Set 10-3/4" OD 40.5# J-55 NSS Casing at 678' and cemented to surface with 320 sx regular cement plus 2% gel and 2% calcium chloride with 1/4# seal flake per sack.

10-19-58

Set 128 joints 7-5/8" OD 40.5# J-55 NSS casing at 4170'. Cemented with 1000 sx. 50-50 Pozmix with 17# salt per sack with 2% gel, 2% cal. chloride and 1/4# seal flake per sack. Top of cement inside pipe at 4136'. Tested cement job with 1200# pressure for 30 minutes. Held OK.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Pure Oil Company

Address 1700 Broadway

Denver 2, Colorado

By [signature]

Title Division Chief Production Clerk

W

U. S. GOVERNMENT PRINTING OFFICE 16—8437-5

Form 9-331a
(Feb. 1951)

Budget Bureau No. 42-R358.4.
Approval expires 12-31-60.

Land Office Salt Lake

Lease No. Utah 07262

Unit

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

M-H
12-1-58

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 19, 1958

Mineral Point USA
Well No. 1 is located 1820 ft. from {S} line and 660 ft. from {E} line of sec. 7

NE/4 SE/4, Sec. 7 (¼ Sec. and Sec. No.) | 26-S (Twp.) | 18-E (Range) | Salt Lake (Meridian)

Wildcat (Field) | Grand (County or Subdivision) | Utah (State or Territory)

The elevation of the K.B. above sea level is 5075 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

11-13-58

Halliburton DST No. 2, 6827' - 6968-1/2'. Tool open one hour, shut in 30 minutes. Fair blow initially, good blow in 10 minutes, fair blow in 15 minutes, continued throughout test. Recovered 690' highly gas cut drilling mud and sulphur water. Pressures: Initial SI 2600, IH 3743, IF 70, FF 252, FH 3743, Final SI 2322.

11-16-58

Halliburton DST No. 3, 6978' - 7086'. Shut in 1/2 hour for ISIP, open one hour, shut in 1/2 hour. Opened with strong blow, decreasing slowly to fair blow in 30 minutes, decreasing slowly to no blow in 55 minutes. Recovered 5900' slightly salty sulphide water. Pressures: IH 3925, ISIP 2650, IF 1000, FF 2650, FSIP 2650, FH 3905.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Pure Oil Company

Address 1700 Broadway

Denver 2, Colorado

By T. L. Warburton JB

Title Division Chief Production Clerk

W/

U. S. GOVERNMENT PRINTING OFFICE: 1958 O - 463339

Form 9-331a
(Feb. 1951)

Budget Bureau No. 42-R358.4.
Approval expires 12-31-60.

Land Office Salt Lake City

Lease No. Utah 07262

Unit

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

71-H
12-1-58

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL	X		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 20, 1958

Mineral Point USA
Well No. 1 is located 1820 ft. from {N/S} line and 660 ft. from {E/W} line of sec. 7

NE/4 SE/4 Sec. 7 (¼ Sec. and Sec. No.) | 26-S (Twp.) | 18-E (Range) | Salt Lake (Meridian)

Wildcat (Field) | Grand (County or Subdivision) | Utah (State or Territory)

The elevation of the K.B. above sea level is 5075 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

T.D. 7282'

Plan to Plug and Abandon as follows:

7282' to 7194' - 88' - 20 sacks cement.
6850' to 6762' - 88' - 20 sacks cement.
6670' to 6582' - 88' - 20 sacks cement.
4210' to 4100' - 110' - 25 sacks cement.
25' to surface - 25' - 5 sacks cement.

Will install well marker according to U.S.G.S. Regulations.

Will leave heavy drilling mud between cement plugs.

Verbal approval obtained from U.S.G.S. in Salt Lake City, Utah.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Pure Oil Company

Address 1700 Broadway

Denver 2, Colorado

By T. L. Warburton

Title Division Chief Production Clerk

U. S. GOVERNMENT PRINTING OFFICE: 1958 O - 463339

Form 9-331a
(Feb. 1951)

Budget Bureau No. 42-R358.4.
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City
Lease No. Utah 07262
Unit

N-H
12-1-58

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	X
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 24, 19 58

Mineral Point USA
Well No. 1 is located 1820 ft. from {N/S} line and 660 ft. from {E/W} line of sec. 7

NE/4 SE/4 Sec. 7 (¼ Sec. and Sec. No.) | 26-S (Twp.) | 18-E (Range) | Salt Lake (Meridian)

Wildcat (Field) | Grand (County or Subdivision) | Utah (State or Territory)

The elevation of the K.B. above sea level is 5075 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

T.D. 7282'

November 20, 1958

Well Plugged and Abandoned as follows:

7282' to 7194'- 88' - 20 sacks cement.
6850' to 6762'- 88' - 20 sacks cement.
6670' to 6582'- 88' - 20 sacks cement.
4210' to 4100' -110' - 25 sacks cement. (Bottom of 7-5/8" OD casing.)
25' to surface - 25' - 5 sacks cement. (Top of 10-3/4" OD casing.)

Well Marker installed according to U.S.G.S. Regulations.

Heavy drilling mud between cement plugs.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Pure Oil Company

Address 1700 Broadway

Denver 2, Colorado

By T. L. Warburton

Title Division Chief Production Clerk

U. S. GOVERNMENT PRINTING OFFICE: 1958 O -463339

W c

Budget Bureau No. 42-R356.5.
Approval expires 12-31-60.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City
LEASE NUMBER Utah 07262
UNIT

LESSEE'S MONTHLY REPORT OF OPERATIONS

31-4
12-31

State Utah County Grand Field Wildcat

The following is a correct report of operations and production (including drilling and producing wells) for the month of November, 19 58,

Agent's address 1700 Broadway *Company* The Pure Oil Company

Denver 2, Colorado *Signed*

Phone AMherst 6-3331 *Agent's title* Division Chief Production Clerk

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
NE¼ SE¼ Sec. 7 (Mineral Point USA)	26S	18E	1							Drilled 5960' to 6968.5'. Halliburton DST No. 1, 6857' to 6968.5', unable to set Packer. Halliburton DST No. 2, 6827' to 6968.5'. Tool open one hour, shut in 30 minutes. Fair blow initially, good blow in 10 minutes, fair blow in 15 minutes, continued throughout test. Recovered 690' highly gas cut drilling mud and sulphur water. Pressures: ISI 2600, IH 3743, IF 70, FF 252, FH 3743, FSI 2322. Drilled 6968.5' to 7086'. Halliburton DST No. 3, 6978' to 7086'. Shut in 1/2 hour for ISIP. Open one hour, shut in 1/2 hours. Opened with strong blow, decreasing slowly to fair blow in 30 minutes, decreasing slowly to no blow in 55 minutes. Recovered 5900' slightly salty sulphide water. Pressures: IH 3925, ISIP 2650, IF 1000, FF 2650, FSIP 2650, FH 3905. Drilled 7086' to 7282', total depth. Ran electric logs. Well Plugged and Abandoned 11-20-58. Final Report.

DEC 1 1958

NOTE.—There were ..... runs or sales of oil; ..... M cu. ft. of gas sold

..... runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25766-8 U. S. GOVERNMENT PRINTING OFFICE

THE PURE OIL COMPANY

GENERAL OFFICES, 35 EAST WACKER DRIVE, CHICAGO.

ROCKY MOUNTAIN PRODUCING DIVISION
1700 BROADWAY
DENVER 2, COLORADO

December 17, 1958

Mr. Cleon B. Feight
Secretary
Utah Oil & Gas Conservation Commission
Room 140 - State Capitol Building
Salt Lake City, Utah

Dear Mr. Feight:

Enclosed are the following records pertaining to

Mineral Point USA, Well No. 1-Sec. 7-26-S-18-E, Grand County, Utah.

1. Form No. 9-330, Log of Oil or Gas Well.
2. One copy Lane Wells Radioactivity Log.
3. One copy Schlumberger MicroLaterolog.
4. One copy Schlumberger Laterolog.
5. One copy Geological Sample log.

If there is any other information you desire on this Well, please advise.

Yours very truly

T. L. Warburton
Division Chief Production Clerk

TLW:ap

Enclosure

Form 9-330

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

U. S. LAND OFFICE Salt Lake
SERIAL NUMBER Utah 07262
LEASE OR PERMIT TO PROSPECT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company The Pure Oil Company Address 1700 Broadway - Denver 2, Colorado

Lessor or Tract U. S. Government Field Wildcat State Utah

Well No. Mineral Point USA 1 Sec. 7 T. 26S R. 18E Meridian Salt Lake County Grand

Location 1820 ft. N. of S Line and 660 ft. W. of E Line of NE SE, Sec. 7 Elevation 5075' KB 5062' Gr. (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed [signature]

Date December 11, 1958 Title Division Chief Production Clerk

The summary on this page is for the condition of the well at above date.

Commenced drilling September 27, 1958 Finished drilling November 19, 1958

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from None to No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from 6978 to 7086 No. 3, from to

No. 2, from to No. 4, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
10-3/4"	40.5#	8-R	NSS	678'	Float				Cemented to surface.
7-7/8"	[illegible]	8-R	NSS	4170'	Float				Cemented to surface.

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10-3/4"	678'	320 sx.	Halliburton		
7-7/8"	4170'	1000 sx.	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set

Adapters—Material Size

SHOOTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10-3/4"	678'	320 sx.	Halliburton		
7-7/8"	4170'	1000 sx.	Halliburton		

FOLD | MARK

PLUGS AND ADAPTERS

Heaving plug—Material ..... Length ..... Depth set .....

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from Zero feet to 7282 feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

DATES

Dry Hole, 19..... Put to producing ....., 19.....

The production for the first 24 hours was ..... barrels of fluid of which ....% was oil; ....% emulsion; ....% water; and ....% sediment. Gravity, °Bé. .....

If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. .....

EMPLOYEES

....., Driller ....., Driller

....., Driller ....., Driller

FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION
-0-	292'	292'	Sandstone.
292'	700'	408'	Sand and shale.
700'	1425'	725'	Sandstone.
1425'	3060'	1635'	Sand and shale
3060'	3186'	126'	Sandy lime and dolomite.
3186'	3589'	403'	Sand, shale and lime.
3589'	3968'	379'	Sand and shale.
3968'	4053'	85'	Sand, shale and brown chert.
4053'	4172'	119'	Sand, shale and salt.
4172'	4189'	17'	Salt.
4189'	4431'	242'	Shale, salt and anhydrite.
4431'	4754'	323'	Salt and shale.
4754'	5160'	406'	Salt, shale and anhydrite.
5160'	6352'	1192'	Salt and shale.
6352'	6417'	65'	Shale.
6417'	6660'	243'	Salt and shale.
6660'	6721'	61'	Shale.
6721'	6755'	34'	Shale and anhydrite
6755'	6812'	57'	Shale, pyrite and anhydrite.
6812'	6925'	113'	Lime and dolomite.
6925'	6950'	25'	Core No. 1 - See reverse side.
6950'	6964'	14'	Core No. 2 - See reverse side.
6964'	6968.5'	4.5'	Core No. 3 - See reverse side.
6968.5'	6978'	9.5'	Dolomite and lime.
6978'	7036'	58'	Core No. 4 - See reverse side.
7036'	7282'	246'	Lime and dolomite.
		7282'	TOTAL DEPTH

16-43091-4

W

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

Core No. 1 6925' to 6950' Cut 25' Rec. 25' (Barrel jammed.)

21' - Light gray dense lime.
4' - Dolomite, dark gray, bottom 1-1/2' bleeding light green oil and gas, very porous.

Core No. 2 6950' to 6964' Cut 14' Rec. 14' (Barrel jammed.)

5' - Dolomite, light gray, fine xln, fractured, black sulfide residue, slight PP porosity, no fluor.
3' - Dolomite, light gray to gray, fine xln, PP Porosity, good odor, slight fluor., fractured with black residue, fair fluor.
6' - Dolomite, gray, fine xln, fair to good PP Porosity, to vuggy Porosity, bleeding gas and brown oil.

(Note: Last 2' good saturation, looks wet.)

Core No. 3 6964' to 6968.5' Cut 4.5' Rec. 3-3/4' (Barrel jammed.)

3-3/4' - Dolomite, light gray, fine xln, good PP Porosity, black sulfide residue bleeding salty sulfur water, slight bleeding oil and gas, random fractures bleeding oil, gas and water.

Core No. 4 6978' to 7036' Cut 58' Rec. 50'

5' - Dolomite, medium xln, fine to dense, fair to good pinpoint vugular porosity, slight sulphur odor on fresh break. Random fractures filled with black sulphide residue.
15' - Dolomite, light gray to gray, fine xln, dense, fair pinpoint porosity with black residue, sulphur odor on fresh break, looks wet.
5' - Dolomite, brownish gray, fine xln, tight to fair pinpoint porosity.
13' - Dolomite, light gray to gray, fine xln to coarse xln, fine pinpoint vugular porosity, black residue in porosity, sulphur odor, looks wet, tastes salty, irregular hairline fractures.
7' - Dolomite, light gray, fine to dense xln, fine pinpoint porosity, black residue in porosity, sulphur odor on fresh break, tastes salty, looks wet.
8' - No recovery.

IMPORTANT MARKERS

Chinle	530'
Moenkopi	881'
Cutler	1495'
Salt	4129'
Mississippian	6805'
Devonian	7268'

MINERAL POINT USA #1

Section 7, T. 26S., R. 18E.

1820' FSL & 600' FEL

GRAND COUNTY, UTAH

SPUDDED SEPTEMBER 27, 1958

COMPLETED NOVEMBER 20, 1958

SAMPLE ANALYSIS BY [illegible] W. [illegible] & JOHN V. WALKER

FORMATION TOPS

Formation	Sample Top	Electric Log Top	Datum
Kayenta	Spud		
Wingate	250	240	+4832
Chinle	550	530	+4542
Moenkopi	840	881	+4191
Permian White Rim	1510	1495	+3577
Shafer Limestone	2267	2280	+2812
Hermosa	2720	2720	+2352
Salt Top	4135	4129	+ 941
Salt Base	6657	6658	-1566
Molas			
Mississippian	6810	6805	-1713
Ouray	7265	7267	-2175
Total Depth	7282	7286	-2214

Sandstone, white, translucent, pink, medium to fine grain, sub-angular to sub-rounded, calcareous cement. Shale, light brown to light red brown.

Sandstone, white, fine grain, sub-rounded. Gross sample color white.

As above; gross sample color light orange brown, typical wingate color.

Sandstone, as above. Shale and siltstone, purple and maroon, micaceous.

Shale and siltstone, purple, maroon, brown w/some micaceous.

Wingate 250 / 4862
Chinle 550 / 4517

5067 DF(?)

Spud 27 Sept. 1958 @ 4:00 P. M.
Drilled 701' DF 13-3/4 hole
Water @ 522'
Set 10-3/4 @ 678.7 w/320 regular on 9/30/58
Will drill out w/air and water 10/2/58.

Sandstone, fine-very fine, grain, white to buff. Shale, orange. (Drilled with air, 2000 cu. ft. bol. 45 lb/square in, pressure, 43,000 bit wt.)

Shale, purple, micaceous.

Shale, light purple to gray, micaceous

Shale, light orange, purple, micaceous.

Shale, and sandstone, as above, becoming buff.

As above, buff.

Shale, gray, micaceous. 1½° @ 761

Shale, gray, micaceous, water wet.

Shale, gray, micaceous; sandstone, orange, very fine grain; a trace of shale, dark purple.

Shale, orange, brown, w/some purple shale, a trace of sandstone, very fine grained.
Moenkopi 800'

Sandstone, buff, micaceous, fine grain.

Sandstone, as above. (Slightly wet sand, had trouble keeping hole dry thru sand).

Sandstone as above w/trace of shale, gray and purple.

Sandstone, buff, micaceous, fine grain; shale, orange, brown, very mic[illegible]

Sandstone, medium grain, yellow orange to yellow brown, sub-rounded; scattered balls of shale and sandstone.

Shale, chocolate brown, a trace of sandstone large sand grains, a trace of gypsum.

[illegible] sample.

[illegible]-[illegible] Shale, chocolate brown.

[illegible]-[illegible] Shale, orange, chocolate brown, micaceous.

[illegible]-[illegible] Shale, deep chocolate brown, micaceous, w/traces of gypsum, white, soft, granular.

[illegible]-[illegible] Shale, orange, chocolate brown, micaceous.

[illegible]-[illegible] Shale, orange brown, micaceous.

[illegible]-[illegible] Shale, dark chocolate brown, micaceous, w/trace of gypsum and anhydrite (?).

[illegible]-[illegible] Shale, orange, brown, micaceous.

[illegible]-[illegible] Shale, light green, to gray, green, some mottled, orange brown, micaceous.

[illegible]-[illegible] Shale, light gray, green, micaceous; siltstone, light gray, green, micaceous; a trace of sandstone, very fine grain, rounded, white to tan.
Slope test @ 1109' 1½°

[illegible]-[illegible] Shale and sandstone, cross sample, slightly yellow gray green.

[illegible]-1150 Shale, gray to very fine sand grains.

[illegible]-1220 Shale, gray to light gray-green.

[illegible]-1230 Shale, light gray-brown to tan, micaceous; siltstone, tan.

[illegible]-1260 Shale-siltstone, cream, tan.

[illegible]-1290 Shale, light orange, brown.

[illegible]-1320 Shale, light orange, chocolate brown.

[illegible]-1340 Shale, light orange-brown, w/some siltstone, light orange, brown, micaceous.
Slope test @ 1328' 1½°

[illegible]-1370 As above w/some dark gray shale. White rim 1350'?

[illegible]-1390 Shale and siltstone, light orange, brown, w/trace of gypsum and deep red-brown, arkosic siltstone.

[illegible]-1410 Shale, and siltstone, as above, becoming more chocolate brown.

1410-1450 (Had considerable trouble getting out of hole, tight spot around 900', moenkopi sandstone @ 810-850 probably making water.) Made 50' of hole while trying to dry up hole, no samples, no returns, drilling time erratic and [illegible] representative of interval)
Started injecting water and soap @ 1:30 AM on 4 October, 1958.
The connection made and 1670' had 2' of fill up but required 450 lbs of pressure, air, to regain circulation, estimate that we are making about as much water from the hole as we are adding, injecting 10-15 bbls, getting back 25-30 bbls.
White rim picked on basis of slight increase in drilling time. I could find no sand in the samples.

[illegible] sample.

Siltstone, maroon to brown, micaceous, [illegible] mottled w/light [illegible] sandstone, white to buff, medium grain, sub-rounded, calcareous, & [illegible] large pink quartzite grains; shale, maroon, micaceous. (Added [illegible] soap, 10 to 15 bbls per hour) 2000 vcl. 150-200 grav.

Siltstone and shale as above.

Siltstone and shale, maroon, micaceous, arkosic; sandstone, maroon, [illegible] grain, w/pink grains sub-rounded and ventifact; sandstone, white, [illegible] grain to large grain, sub-rounded.

Sandstone, pink to orange, medium to fine grained, rounded to sub-rounded. (95% of sample loose sand grains)

Sandstone as above; siltstone and shale, maroon, micaceous, arkosic.

Shale, gray, mottled ochre; shale, purple; siltstone, maroon.

Sandstone, white, medium grain, sub-rounded to sub-angular. (95% of [illegible] loose sand grains)

Sandstone as above; shale, purple to gray; siltstone, maroon, micaceous.

Sandstone, as above; shale, purple and gray; shale, light green, waxy; silt-stone, maroon, micaceous.

Sandstone, white, medium grain, sub-rounded (sample 95% loose sand); [illegible], maroon, gray, dark brown.

Sandstone, white, medium grain, sub-rounded. (sample 98% loose sand).

Sandstone as above; shale, gray to waxy green and shale, red to maroon, micaceous.

Sandstone, white, medium grain, sub-rounded (sample 95% loose sand).

Sandstone, as above; shale, deep purple to black, waxy, and shale, light [illegible] waxy; shale, rounded, maroon, micaceous. Straight Hole @ 1665 1-3/4°

As above, shale increased.

As above, shale increased.

Sandstone, white, medium grain, sub-rounded (sample 85% loose sand); [illegible], gray, maroon, micaceous; shale, light green, waxy; shale, purple.

Sandstone as above; sandstone, light orange to salmon, fine grain; shale as above.

Sandstone and shale as above.

Siltstone, red, brown, micaceous, arkosic.

[illegible]-1[illegible] Siltstone and shale, red, brown, micaceous, arkosic; shale, gray, gre[illegible], and purple waxy; sandstone, white to orange brown, fine grained, a trace of very large frosted, sub-rounded to round quartzite grains.
(Decreasing water injections to 8 bbls per hour hole making 60 bbls per hour, est.)

[illegible]-1[illegible] Siltstone, red to maroon, micaceous, arkosic.

[illegible]-1[illegible] Shale, maroon, chocolate brown, very micaceous, sandy; siltstone, red, brown, micaceous, arkosic.

[illegible]-1[illegible] Siltstone and shale as above.

[illegible]-1[illegible] Siltstone and shale as above w/some shale gray, waxy.

[illegible]-1[illegible] Shale, orange brown, to chocolate brown, sandy, very micaceous.

[illegible]-1[illegible] Siltstone and shale, red brown, very micaceous, arkosic.

1940-1970 Sandstone, red, orange, micaceous and arkosic, angular; sand grains, fine to very fine grained; shale as above. Straight Hole Survey @ 1945 2½°

1970-1990 Shale, red brown to gray, some waxy, micaceous; siltstone, red, orange, micaceous, arkosic; sandstone, red orange, fine to very fine grained, angular grains, micaceous and arkosic.

1990-2000 Shale, red brown, sandy, micaceous, arkosic; siltstone as above.

2000-2010 Missing sample.

2010-2030 Siltstone, red, brown, micaceous, arkosic; sandstone, white to light green, medium to fine grained, micaceous; shale, red, brown, light green, micaceous, mottled white and cream.

2030-2050 Sandstone, white, medium to large grained, angular; many large clear quartzite grains; siltstone, red brown, micaceous, arkosic; shale, red-brown.

2050-2060 Sandstone, white to cream, large grained, angular, w/inclusions of salmon quartzite grains, well rounded and large pieces of feldspar.

2060-2070 Sandstone as above; siltstone, white to light green, very micaceous, arkosic; shale, red-maroon, chocolate brown, micaceous.

2070-2080 Siltstone, red-orange, very micaceous, arkosic.

2080-2090 Siltstone as above, becoming light green and sandy; sandstone, white, large grained, angular, arkosic.

2090-2100 Siltstone, dark brown to black, micaceous, calcareous; shale, light gray, micaceous, calcareous.

2100-2110 Siltstone, red-brown, arkosic, micaceous; shale, light gray to dark gray, silty, micaceous, calcareous.

2110-2120 Sandstone, brown, medium grained, sub-angular, micaceous, calcareous, [illegible]

2150–2160 Siltstone, red, brown, micaceous, arkosic; shale, light green, very sandy & micaceous.

2160–2170 Sandstone, orange brown, sub-angular, micaceous, arkosic, fine grained (ground up as loose grains).

2170–2180 Missing sample.

2180–2190 Sandstone, white-buff, medium to fine grained, sub-angular, micaceous.

2190–2200 Siltstone, red brown, light green and buff, micaceous, arkosic; shale, dark brown and red brown, micaceous, sandy.

2200–2210 As above; w/shale, dark to light green, mottled, white, soft to slightly hard, waxy.

2210–2220 Sandstone, white cemented, orange to transparent, large grain, angular, arkosic micaceous; siltstone, red brown, brown, dark gray, micaceous.

2230–2240 Sandstone, orange, red, medium to fine grained, some micaceous.

2240–2250 Siltstone, orange-red-brown, micaceous, arkosic; sandstone, medium to large grain, transparent grains loose in sample.

2250–2260 Sandstone, orange, red, medium to fine grain, angular to sub-angular; siltstone and shale as above.

2260–2270 Limestone, white to tan, some slightly sandy. Shafer Ls. 2267

2270–2280 Limestone as above; shale, dark chocolate brown, micaceous.

2280–2290 Shale as above; siltstone, orange, red, micaceous, angular, arkosic.

2290–2300 Shale, red brown to deep brown, purple, waxy.

White Rim 1510 Moenkopi 840
Shafer Ls. 2267
190' high to benchmark on shafer Ls. 1053' low to Big Flat #1.

2300–2310 Siltstone, dark gray, micaceous, hard; limestone, white to gray, very fine crystalline, arenaceous w/abundant crinoid stems; shale, dark red brown to gray, micaceous.

2310–2320 As above, becoming more limey.

2320–2330 Limestone, tan, brown, gray, arenaceous, very siliceous, w/inclusions of tan to brown chert, some dolomite.

2330–2340 Limestone, as above, becoming more black and sandy downward; shale, dark red brown, micaceous.

2340–2350 Shale, dark red brown, micaceous.

2350–2360 Shale as above; limestone, white, dark gray, cherty, pyritized, sandy; siltstone, dark gray, shale, red & dark brown, micaceous.

2360–2370 Missing.

[illegible]-[illegible]	Siltstone, white to dark gray, micaceous; limestone, dark gray, [illegible] hard, arenaceous; sandstone, white, orange, medium to fine grain, [illegible]
[illegible]-[illegible]	Limestone, white, soft, arenaceous; limestone, dark gray-black, arenaceous, argillaceous, micaceous; abundant crinoid stems and fusulinid.
[illegible]-[illegible]	Siltstone, orange, micaceous; sandstone, orange, medium to large grained, angular to sub-rounded, loose sand grains.
[illegible]-[illegible]	Sandstone, orange, red, medium to large grained, very micaceous, arkosic, angular grains.
[illegible]-[illegible]	Shale, gray-green, some waxy, very micaceous; siltstone, brown-red brown, micaceous; limestone, tan brown, very fossiliferous.
[illegible]-[illegible]	Siltstone, brown, micaceous; shale, dark green, very micaceous, very fossiliferous; limestone, white, tan, brown, some mottled, micaceous, fossiliferous.
[illegible]-[illegible]	Shale and siltstone as above; sandstone, red-brown, very fine grained.
[illegible]-[illegible]	Limestone, white, soft; sandstone, orange-brown, to chocolate brown, medium to fine grained, angular to sub-angular, loose grained.
[illegible]-[illegible]	Sandstone, orange, brown to chocolate brown medium to fine grain, angular to sub-angular; siltstone, chocolate to orange brown, micaceous, hard.
[illegible]-[illegible]	Sandstone as above; shale, light to dark green, micaceous.
[illegible]-[illegible]	Missing Sample.
[illegible]-[illegible]	Shale and siltstone, red brown, micaceous; sandstone, orange-red, micaceous, arkosic, angular.
[illegible]-[illegible]	Siltstone and shale as above.
[illegible]-[illegible]	Siltstone and shale as above; sandstone, orange, red, very large grained, rounded.
[illegible]-[illegible]	Siltstone and shale as above; shale, dark green, very micaceous.
[illegible]-[illegible]	Shale and siltstone, light to dark green, micaceous, some very very micaceous; limestone, white to tan, gray, medium crystalline, slightly arenaceous, dull yellow fluorescence, no visible porosity, no cut.
[illegible]-[illegible]	Sandstone, white to red orange, sample is 80% loose angular medium to large quartzite grains, angular to sub-angular; shale, chocolate to orange red-brown.
[illegible]-[illegible]	Sandstone as above; shale, dark to light green, micaceous.
[illegible]-[illegible]	Sandstone and siltstone as above.
[illegible]-[illegible]	Siltstone and shale as above; shale, light green laminated w/red shale, micaceous.
[illegible]-[illegible]	Siltstone and shale as above.

[illegible]–[illegible]	Siltstone and shale as above; shale, purple and shale, chocolate brown.
[illegible]–2670	Shale and siltstone as above; sandstone, white to orange brown, medium grained, sub-rounded; limestone, white-gray, mottled salmon and red [illegible] shale, dark green, micaceous, sandy.
[illegible]–2670	Shale, dark green, red brown, micaceous; siltstone, red brown, micaceous; sandstone, white, medium to large grained, w/orange flecks and scattered orange grains, sub-rounded.
2670–2680	Missing.
2680–2690	Limestone, tan, brown, w/olive tint, fine crystalline, w/laminations of shale, black, carbonaceous, hard, dense, no visible porosity; a trace of limestone, red to red brown, very large crystalline, micaceous.
2690–2700	Limestone and shale as above.
2700–2720	Siltstone, light green, very micaceous; sandstone light green, micaceous, medium to fine grained; shale, light green, micaceous. Straight hole @ 2703 2¼°
2720–2730	Limestone, light gray to buff, tan, fine crystalline, micaceous; shale, light to dark gray, micaceous.
2730–2740	Shale, dark gray green, some sandy, micaceous; limestone as above; siltstone as above; a trace of shale, appears as white porcelain chips.
2740–2750	Sandstone, white, medium grained, sub-rounded; limestone, light gray, fine crystalline, arenaceous, micaceous; shale, dark gray to black, micaceous.
2750–2760	Limestone, light gray, fine crystalline to arenaceous and argillaceous, micaceous, fossiliferous; sandstone, white, medium to fine grain, sub-rounded to angular.
2760–2780	Sandstone, white, fine grained, very micaceous, sample 95% loose sand grains.
2780–2790	Missing sample.
2790–2800	Sandstone as above; limestone, white, cream, very fine crystalline, arenaceous, argillaceous; shale, black, dark gray.
2800–2810	Siltstone, light gray to green, micaceous; shale, light grape, olive green, red-brown; limestone, white to dark gray, argillaceous, arenaceous; sandstone, white, medium to fine grained, angular.
2810–2830	Shale, black to dark gray, not grape and cream, red-brown; sandstone, white, medium to fine grained, angular, loose grains; limestone, gray, tan, fine crystalline, arenaceous, argillaceous.
2830–2850	Limestone, gray to tan, fine crystalline, some arenaceous and argillaceous fossiliferous, micaceous; shale, dark brown to black, very fine, micaceous; dolomite, tan, brown, fine crystalline.
2850–2860	Dolomite as above; shale, red, dark grape, some mottled w/olive green; siltstone, dark gray to dark green, micaceous.

[illegible]	Sandstone, white, medium grained, angular, micaceous, sample 95% loose sand grains.
[illegible]	Missing sample.
[illegible]	Sandstone as above; shale, dark green-black, micaceous.
[illegible]	Sandstone as above; shale, red, green, dark to light grape, mottled; limestone, tan brown, soft.
[illegible]	As above w/increased limestone; siltstone, gray-green.
2910-2920	Limestone, white, fine crystalline, soft, fine crystalline, hard, dense, micaceous; sandstone, white, medium grained, sub-angular, sample 80% loose sand grains, micaceous.
2920-2930	Sandstone as above; limestone, white, tan, fine crystalline; siltstone, [illegible] green, micaceous.
2930-2950	Shale, gray to black, very micaceous; siltstone, white, very micaceous, [illegible] w/orange, very calcareous.
[illegible]	Shale, dark gray, very micaceous; siltstone, white, very micaceous.
[illegible]	Sandstone, white, orange, fine grained; siltstone, white, very micaceous; shale, dark green, very micaceous;
[illegible]	Limestone, white buff, fine crystalline; shale, red to purple, mottled white and olive green, silty; siltstone, green, micaceous.
[illegible]	Shale, black, dark gray, red-orange, white to buff, none micaceous; limestone, dark brown.
2990-3000	Shale, black, dark gray; limestone, dark brown, sub lithographic, cherty.
3000-3010	Siltstone, brown, micaceous.
3010-3020	Siltstone, brown, micaceous w/inter-bedded limestone; brown, medium crystalline, very fossiliferous.
3020-3030	Limestone, black, very fine crystalline, arenaceous, micaceous; dolomite, white, sucrosic, inter-bedded w/limestone, tan, brown; a little crystalline w/dull yellow green fluor.
3030-3040	No sample.
3040-3050	Limestone, tan, brown, fine crystalline, hard, dense, dull yellow fluor; dolomite, white sucrosic, w/inclusions of tan, brown, orange, cherty; dolomite, brown, fragments are very fossiliferous; dolomite, gray to white, medium to fine crystalline, w/abundant large crystal fragments.
3050-3060	Limestone, black, dense, slightly micaceous; limestone, tan, brown, fine crystalline; shale, lavendar, waxy, mottled, white and brown; chert, mottled red, white, pink, tan.

[illegible] shale, black, micaceous.

[illegible] limestone, dark tan, brown, medium crystalline w/inclusions of [illegible] limestone, white to gray, soft, a trace micaceous.

Drill Data 2950-3080
Wt. 50,000
Rpm. 60
Air.Pres. 400
Inj. 6bbls/hr. wtr w/soap (Aire)

[illegible]-3100 Limestone, tan, brown, some fine crystalline, cherty, some very micaceous, argillaceous, arenaceous; shale, lavendar, brown, and red brown; chert, tan buff, transparent, opalescense.

[illegible]-3110 As above w/increase in shale and trace of light green shale.

[illegible]-3120 As above, becoming dolomite in part.

[illegible]-3130 Dolomite, tan-brown, cherty, micaceous, hard, dense; limestone, white, soft, slightly micaceous, fossiliferous; limestone, white, tan, granular, w/inclusions of carbonaceous fossils and silicified fossils.

[illegible]-3140 Shale, black, micaceous and shale, black, typical paradox poker chip; limestone, white, very fossiliferous, large crystalline, w/dull yellow green fl[illegible]

[illegible]-3150 Limestone, white to tan, large crystalline, fossiliferous hash of crinoidal stems and colored coral, good pin-point porosity and in crystalline porosity possible.

[illegible]-3160 Missing sample. Switched to drlg. w/aer. wtr. @ 3155 using 225 gal/min. wtr. 450 psi @ 2000 w/t. vol.

[illegible]-3170 Dolomite, gray, tan, arenaceous, siliceous; a trace of chert, tan, brown.

[illegible]-3180 Dolomite as above; limestone, tan-brown, white, fine crystalline, soft; [illegible] tan, brown.

3180-3200 Limestone and dolomite as above; shale, black and brick red, some mottled [illegible] green, some waxy and siliceous; chert, tan-cream, transparent.

3200-3210 Limestone and dolomite as above; w/trace of chert, cream.

3210-3220 Limestone and dolomite as above.

Drilling Data
Wt. 50,000
Rpm. 60

[illegible]-3230 Missing sample.

[illegible]-3240 Dolomite, tan-gray black, micaceous, siliceous.

[illegible]-3250 Dolomite as above, becoming more calcareous.

3250-3260 As above.

[illegible]-3270 Dolomite as above; limestone, white cream, large crystalline to sucrose, micaceous.

[illegible]-3280 Limestone, tan-buff, sub lithographic to medium crystalline, micaceous [illegible] black, slightly micaceous.

[illegible]-3290	As above, limestone becoming slightly cherty.
[illegible]-3300	Limestone, brown, tan, medium crystalline, with inclusions of large quartz grains, frosted, micaceous; shale, black, slightly micaceous.
3300-3320	Sandstone, white, medium-fine grain, angular, w/scattered angular large grains of orange quartz, calcareous, cement, micaceous; limestone, tan, brown, medium-crystalline.
3320-3330	Limestone, chalky white, fine crystalline, soft; shale, light salmon, soft.
[illegible]-3340	Limestone, white-brown, fine crystalline, soft, w/disseminated grains of angular quartz.
[illegible]-3350	Limestone as above; dolomite, dark brown, micaceous.
[illegible]-3360	Limestone, tan-brown, white, medium to fine crystalline.
[illegible]-3370	Sandstone, white, medium to fine grained, micaceous, w/scattered orange grains (sample is 95% loose angular sand grains).
3370-3380	Limestone, tan-brown, white, fine crystalline; shale, black, brown and grey, micaceous.
3380-3390	Shale, black, micaceous; limestone, white-tan, fine crystalline.
3390-3400	Limestone, white-tan, fine crystalline.
3400-3410	Limestone, tan, cream, white, fine to medium crystalline.
3410-3420	Dolomite, dark brown-black, slightly arkosic and argillaceous, a trace of anhydrite.
3420-3430	Dolomite, dark brown-black, slight arenaceous and argillaceous, a trace of anhydrite; shale, varied color and mottled, green, red, purple, lavender; limestone, white, cream, fine crystalline, soft.
3430-3440	Limestone, tan, cream, medium-large crystalline, very fossiliferous; limestone, tan, brown, fine to large crystalline, fossiliferous.
3440-3470	Limestone as above, becoming cherty w/siliceous fossil; siltstone and sandstone, white-grey, brown, medium to coarse grained; dolomite, w/abundant micaceous and flecks of orange chert.
3470-3480	Limestone, tan-brown, medium-large crystalline, arenaceous; siltstone and shale, micaceous.
3480-3490	Limestone, tan brown, medium-large crystalline, with a trace of pink chert. Straight Hole @ [illegible] - [illegible]
3490-3500	Shale, black, grey; limestone as above.
3500-3510	Sandstone, white, fine grained, dolomitic; micaceous; siltstone, dark brown, dolomitic, micaceous; dolomite, tan, brown, medium-fine crystalline; limestone, white, tan, cream, fine-large crystalline, very fossiliferous, [illegible] spotty, light green fluor.

[illegible]	Sandstone, light green, white, tan, fine grained, micaceous, calcareous; siltstone, dark gray-brown to black, micaceous.
[illegible]	As above w/shale, black, micaceous.
[illegible]	Limestone, white, fine crystalline; micaceous; chert in fossils.
[illegible]	Limestone, white, tan, fine crystalline, micaceous; chert, tan, fossiliferous; sandstone, white, fine grained, micaceous; shale, dark gray, light green.
[illegible]	Limestone, white, cream, fine-medium crystalline, soft; a trace of tan chert.
[illegible]	Limestone as above; limestone, brown, tan, medium-large crystalline, micaceous; chert, brown.
[illegible]	Limestone, tan brown, fine crystalline, hard, dense, fossiliferous; limestone, white, cream, very fossiliferous, soft, medium-large crystalline to chalky.
[illegible]	Sandstone, white, cream, medium to fine grained, sub-rounded, calcareous, w/ predominantly siliceous cementing between grains, slightly micaceous, becoming more calcareous toward bottom.
[illegible]	Sandstone as above; sandstone, tan, brown, fine-grain, micaceous, calcareous, argillaceous, becoming light green.
[illegible]	Sandstone as above; limestone, white, soft; shale, red, hard, a trace micaceous.
[illegible]	Shale, red, micaceous; limestone, white, medium-fine crystalline, soft.
3820-3840	Sandstone, white, tan, medium-fine grained, sub-angular to rounded, dolomitic w/inclusions of very large quartzite grains, frosted, micaceous, loosely cemented.
[illegible]	As above w/trace of red brown shale,
[illegible]	As above, no shale,
3670-3690	Sandstone as above; dolomite, tan, cream, fine crystalline; limestone, tan, cream, fine crystalline.
[illegible]	Limestone and dolomite as above.
3690-3700	Dolomite as above; shale, red-brown, brown; sandstone, dark brown, fine grained, very dolomitic.
[illegible]	Dolomite, brown, medium crystalline, hard, dense, w/inclusions of medium to fine grained quartz, angular to sub-angular and brown chert. Straight hole @ 3720' - 3-4/4° Reduced wt. to 25,000 to straighten hole
3720-3730	As above, becoming very arenaceous and siliceous at bottom.
3730-3740	Dolomite as above, a trace of white fracture or vein filling; limestone, white, soft, arenaceous, grading to sandstone, white, calcareous w/trace pin point porosity.

[illegible]-3760 Dolomite, white-brown, arenaceous, micaceous, fine crystalline, [illegible] siliceous, fossiliferous, crinoidal stems, a trace oolitic; shale, red-gray, mottled white and olive, dark brown, lavender.

[illegible]-3780 Dolomite, gray, tan, medium-large crystalline, fossiliferous, a trace [illegible] cherty, brown; limestone, tan brown, medium crystalline, cherty inclusions, tan, fossiliferous.

[illegible]-3770 Limestone, tan, brown, medium crystalline; chert, tan, brown, fossiliferous; dolomite, tan, green, medium crystalline, oolitic.

[illegible]-3790 As above w/sandstone, white, green, medium grained, calcareous, very poor sample. Straight hole @ 3774' 3-3/4°

3790-3790 Limestone, tan, gray, medium crystalline, micaceous, very poor sample; a trace of chert, white, tan, gray.

3790-3800 Limestone, chalk white, grading to dark brown to black, soft to medium crystalline, hard, dense, fossiliferous, crinoidal stems, some trace arenaceous, cherty, tan.

3800-3810 As above, becoming dolomite.

3810-3820 Limestone and dolomite as above; shale, red-gray, very poor sample.

[illegible]-3830 Sandstone, white flecked w/jade green, fine to large grained, sub-angular to angular, a trace of red frosted large grained quartzite calcareous cement, a trace micaceous.

[illegible]-3840 Shale, black; sandstone, as above; limestone, gray-tan, medium crystalline, slightly arenaceous w/trace of anhydritic inclusions.

3840-3850 Sandstone as above. 3820-30'.

3850-3860 Sandstone, as above grading to arenaceous limestone as above.

Drilling w/water, aerated, 2,000 cu. ft. air, 240 gal./minute 575 psi. air pressure.

3860-3870 Sandstone, tan, brown, flecked w/green, medium to fine grained, calcareous, grading to very arenaceous limestone, tan, brown.

3870-3880 Sandstone, as above, becoming micaceous; sandstone, white, medium grained, calcareous, angular to sub-angular; anhydrite, white, soft, earthy, grading to limestone, white, soft, arenaceous.

3880-3890 Sandstone as above; anhydrite as above; limestone, gray, fine crystalline, fossiliferous.

3890-3900 Shale, very colored, white, red-brown; limestone, gray, large crystalline, very anhydritic; dolomite, tan, brown, crystalline fine, anhydritic; [illegible] stems as above. Very poor sample. Straight Hole @ 3891' 5°

3900-3910 Dolomite, tan-gray, very fine crystalline to medium crystalline, some [illegible] fossiliferous.

Dolomite, dark brown black, arenaceous, hard, dense; limestone, tan, [illegible] to fine crystalline, fossiliferous, w/inclusions of tan and [illegible]

Limestone, black, very fine crystalline, micaceous; limestone, tan, cream, fine crystaline to soft, chalky, fossiliferous and oolitic.

Limestone, black-dark gray, fine crystalline, some silicified, some micaceous, cherty, black to tan.

Limestone as above w/some becoming tan, fossiliferous.

Limestone as above; limestone, white, cream, light gray, medium to fine crystalline, fossiliferous hash, chert?, fair pin point porosity to small vugular porosity, bright yellow flour and cut, no visible stain, appears flushed??

Limestone as above, 3955-60'; limestone, white, fine crystalline, sucrosic, soft to very siliceous and cherty.

Limestone as above; sandstone, white grey, fine grained, sub-rounded, calcareous.

Sandstone, white-tan-grey, fine grained, calcareous, grading to limestone, white, very arenaceous.

Drilling w/aerated water.
2000 cu. ft. air @ 575 Psi. and 240 gallons water/minute.
50,000 lbs. on bit @ 60 Rpm's.

Limestone, white, cream, grading to sandstone, white, cream, fine grained, very calcareous, fossiliferous, [illegible] shale.

Dolomite, tan, brown, fine crystalline, siliceous, some arenaceous, w/black carbonaceous, fossils and a trace of anhydrite inclusions; chert, tan, smokey.

Dolomite as above; shale, red brown, becoming sandy; siltstone, red brown, micaceous.

Sandstone, white, fine grained, calcareous; shale, dark grey black, slightly calcareous; dolomite, tan-grey, fine crystalline, arenaceous, siliceous; chert, tan, smokey.

Limestone, tan grey, very arenaceous, some siliceous; chert, tan, smokey.

As above.

Dolomite, tan-brown-grey, fine crystalline, very arenaceous, siliceous and cherty; chert, tan brown, smokey; shale, red-lavender, black, hard, some pyritic.

As above, shale becoming hematitic.

Drilling w/air and water
2000 cu. ft. air @ 600 Psi.
215 gallons minute of water.

Rpms. 60
Bit weight 50,000

[illegible], tan-brown, siliceous, arenaceous; chert, ta[illegible]

As above; chert, becoming opalescence in part, abundant [illegible] calcite on chert, w/bright yellow fluorescent, no cut.

[illegible]-4100 Dolomite as above and dolomite, white, large grained crystalline, [illegible] limestone, tan, very arenaceous, grading down to sandstone, brown, fine grained, calcareous.

[illegible]-4120 Dolomite, dark brown-dark gray, hard, siliceous, arenaceous; shale, [illegible], w/interbeded anhydrite.

[illegible]-4130 Sandstone, white, fine grained, angular, very calcareous to dolomitic, [illegible] shale, dark gray, black, slightly micaceous.

[illegible]-4130 Sandstone as above; dolomite and limestone, fine crystalline, soft, sample is fine sand size cuttings too small to identify as other than carbonate & possible anhydrite.

4130-4140 Shale, light green, trace, sample otherwise as above in 4120-30'; salt,
TOP SALT 4135'

4140-4150 Salt, sample 4145-50' has trace of salt crystales.

4150-4172 Salt.

Total depth Saturday, 18 October 1958, 4172', 8:50 P.M.
Prepare to run 7-5/8 40 lb. casing to TD. to cement w/1000 sacks 2% Nacl, & lost circulation material and gel.

[illegible]-4180 Salt, clear, small crystales (with cement).

[illegible]-4190 As above, medium to small crystales.

[illegible]-4200 Salt, clear to light tan, medium crystales.

Set 7-5/8" @ 4170 KB w/1000 sacks cement.

Drilling with Air.

	Bit	RPM
4172-4177	8000#	50
4177-4260	10000#	65

[illegible]-4270 No sample.

4270-4290 Limestone, dark gray, dolomitic, anhydritic, shaley, fine crystalline; a little anhydrite, white, soft.

4290-4290 Shale, dark gray to black, calcareous; a trace of calcite, white.

4290-4300 As above; a little anhydrite, gray, dense.

[illegible]-4310 No sample.

[illegible]-4320 Shale, light gray, very calcareous; some anhydrite, white, dense, gummy. (Very gummy sample)

Anhydrite, white, soft to gray, sandy, shaley in part, salt [illegible]
Little dolomite, dark gray, fine crystalline (very sandy [illegible]

4260-80 drilling w/aerated salt water
4280-4350 drilling w/salt water

	Rpm.	Bit wt.	P.P.
4260-80	80	10,000	400
4280-4311	80	10,000	1200
4311-50	80	15,000	1100

[illegible]-4390 Anhydrite, gray to tan, slightly dolomitic, soft, shaley and dolomite brown, very anhydritic, dense.

[illegible]-4430 Dolomite as above; some anhydrite as above.

[illegible]-4480 Anhydrite, gray-tan-white, dense; some dolomite as above; a trace of [illegible] gray to dark gray.

[illegible]-4490 As above, a trace of shale, black.

[illegible]-4400 Shale, dark brown to black, very calcareous, silty, soft; some anhydrite as above.

[illegible]-4415 Shale as above, grading to shaley limestone.

[illegible]-4440 Anhydrite, white to gray, sandy to dense; some shale as above.

[illegible]-4450 Shale, dark brown to black, calcareous; some anhydrite, gray to white.

[illegible]-4480 As above and salt.

[illegible]-4490 Salt.

[illegible]-4500 Salt, clear; a trace of shale, black and brown, a trace gray anhydrite.

[illegible]-4530 Salt, clear; a trace of shale, black.

Drilling with salt water

	Rpm	Bit	P.P.
4550-4550	80	20,000#	1500

4550-4570 Salt, colorless; a trace of limestone, gray, sandy.

[illegible]-4610 Salt, clear; a little shale, black; a trace of dolomite, light gray, [illegible]

[illegible]-4620 As above, dolomite increased to little.

[illegible]-4640 As above; a trace of anhydrite, white, soft.

4630-4640 Salt, clear to light tan; a trace dolomite, gray, sandy; a trace of [illegible] drite, white, soft.

[illegible]-4660 Salt, clear; a little dolomite, gray, sandy; a little shale, black.

[illegible], clear, some orange salt; a trace of black shale.

[illegible] Salt, clear, a little dolomite, gray, very sandy; a trace of shale, black.

[illegible] Salt, clear; a trace of dolomite, gray, sandy; a trace of shale, black.

[illegible] Salt, clear; a trace of dolomite, gray, sandy; a trace of shale, black.

[illegible] Salt, clear; a little dolomite, gray, sandy; a trace of anhydrite, white, soft; a trace of shale, black.

[illegible] As above, anhydrite increased to little.

[illegible] Salt, clear; a little dolomite, gray, sandy; a little anhydrite, white, soft; a trace of shale, black.

[illegible] Salt, clear; a trace of dolomite, gray, sandy; a trace of anhydrite.

[illegible] As above, anhydrite increased to little.

4950-4980 Salt, clear, a trace of dolomite, gray, sandy; a trace of anhydrite, white, soft.

4650-4950 drilling with salt water.
80 Rpm. 12-14,000 bit. 1500 P.P.

4930-4950 Salt, clear; a trace of gray dolomite, a trace of anhydrite, gray.

4950-4960 Salt as above; a little dolomite, gray, sandy; a trace of shale, black.

4960-4970 Salt, clear; and dolomite, gray, sandy, anhydritic; some shale, black.

4970-4980 As above; some anhydrite, white, soft.

4980-4990 As above; anhydrite decreased to little.

4990-5000 Salt, clear; a little dolomite, gray, sandy; a little shale, black.

5000-5050 Salt, clear; a trace of dolomite, gray, sandy, anhydritic; a trace shale, black.

5050-5090 Salt, clear.

5090-5100 Salt, clear; a trace of dolomite, gray, sandy, anhydritic..

5100-5110 As above; trace of black shale.

5110-5120 Salt, clear; a trace of dolomite, gray, sandy, anhydritic; a trace of shale, black; a trace of anhydrite, white, soft.

5120-5130 Salt, clear; some dolomite, gray, sandy, dolomitic; a little shale, black.

5130-5140 As above, a trace of anhydrite, white, soft.

5140-5160 No sample.

5160-5170 Salt, clear; a trace of dolomite, gray, sandy, anhydritic.

As above; a trace of orange salt; a trace of anhydrite, white, soft.

[illegible] Salt, clear; a trace of dolomite, gray, sandy, anhydritic; a trace of anhydrite, white, soft.

[illegible] As above; anhydrite increased to little.

[illegible] Salt, clear; a little anhydrite, white, soft; a little dolomite, gray, sandy, anhydritic.

[illegible] Salt, clear; a little anhydrite, white, soft; a little dolomite, gray, sandy, anhydritic.

[illegible] Salt, clear; a trace of dolomite, as above; a trace of anhydrite, as above.

[illegible] Salt, clear; a little dolomite, gray, sandy, anhydritic; a little anhydrite, white, soft; a trace of black shale.

[illegible] As above; dolomite and anhydrite increased.

[illegible]-5290 Dolomite, gray, anhydritic, sandy; and anhydrite, white, soft; a little shale, black.

[illegible]-5300 Anhydrite, white to gray, soft, very gummy; some dolomite, gray, sandy; some shale, black.

[illegible]-5310 Salt, clear; a little dolomite, gray, sandy, anhydritic; a little shale, black, fissile.

5310-5320 Salt, clear and dolomite, as above; some anhydrite, white to gray, soft, gummy; some shale, black, fissile.

[illegible]-5340 Dolomite, gray, anhydritic, sandy, and anhydrite, white-gray, soft; a little black shale; a little salt, clear.

[illegible]-5370 Salt, clear to very light gray; a trace of dolomite, gray, sandy, anhydritic; a trace of anhydrite, white, soft.

[illegible]-5400 Salt, clear to light orange; a trace of dolomite, gray, sandy, anhydritic; a trace of shale, black.

5400-5410 As above; a little salt, white.

[illegible]-5420 As above; orange salt decreased to very little.

[illegible]-5450 Salt, clear, white to orange; a trace of shale, black; a trace of dolomite, grey, sandy, anhydritic.

[illegible]-5470 Salt, clear; a little salt, orange.

[illegible]-5510 As above; a trace of shale, black.

[illegible]-5580 Shale, black (Poker chip), pyritic, very strong, petroleum odor, looks wet; no fluorescence; Won't Cut.

[illegible] Shale, as above; a trace of salt, clear.

[illegible] As above; salt, increased to some.

DST #1, 5527-5538 Open 45 minutes. Fair to weak blow of air, decreased to weak after 20 minutes, died after 25 minutes; Recovered 110' slightly gas cut mud w/slight rainbow of oil in sample. IFP 50; FFP 50; ISIP(false) 1800/15; FSIP 50/30; IHH 2865; FHH 2880.

[illegible] Shale, black, carbonaceous, very pyritic; good petro odor; a trace of salt.

[illegible] Shale, as above; a little salt, clear.

[illegible] Shale, as above; some salt, clear.

	Rpm.	Wt.Bit	P.P.
5598-5631	80	4-6000	1000
5631-5660	80	2-4000	1400

[illegible] Shale, black, carbonaceous, good petro odor; some salt, clear.

[illegible] Shale, as above; a little salt, clear.

5690-5710 Shale, black, carbonaceous, pyritic, good odor; a little salt, clear.

5710-5720 Shale, as above, looks wet; a little salt, clear.

Depth	RPM	Bit Wt.	P.P.
5687-5688	68	4 to 5000	1400
5688-5698	100	6000	700
5698-5717	100	4 to 6000	600

Straight Hole Surveys with 21° instrument

@ 5458' 6°
@ 5578' 5°
@ 5680' 5°
@ 5705' 5°

5720-5740 Salt, clear, small crystallines that appear to be interbedded with the shale; some shale, black, carbonaceous, good odor on fresh break.

5740-5770 Salt, clear to light gray, small crystales, in layers w/crystal faces on one side; a little shale, black, carbonaceous.

5770-5790 Shale, black, carbonaceous, viterous, good odor, looks wet, no fluorescent, no cut; slightly gassy (flammable).

Depth	RPM	Bit Wt.	P.P.
5717-5757	100	6000	600
5757-5761	100	4 to 6000	1000
5761-5790	100	6000	1000

[illegible]-5760 Shale, black, carbonaceous, odor on fresh break, no fluorescent; salt, clear.

[illegible]-5780 No sample.

[illegible]-5800 Salt, light gray to clear, small crystales, very poor; some shale, [illegible]

[illegible]-5840 Salt, light gray to clear; some shale, black, carbonaceous, odor on fresh break.

[illegible]-5860 Salt, clear; some shale, black, carbonaceous, good petro odor, no fluorescent.

5860-5880 As above, w/black shale, pyritic.

5880-5890 Salt, clear to light gray, small crystalles, very poor, which look wet; some shale, black, carbonaceous, good odor, no fluorescent.

5890-5910 Salt, clear to light gray, looks wet; some shale, black, carbonaceous, looks wet, good petro oder, no fluorescent.

5910-5940 Salt, clear and shale, black, carbonaceous, good oder, no fluorescent.

5940-5950 Salt, light gray-clear, some shale, black, carbonaceous, looks wet, good petro odor, no fluorescent.

5950-5970 Salt, clear; some shale, black, carbonaceous, good oder.

5970-5990 As above, shale decreased to little.

5990-6020 As above w/trace of orange salt.

	RPM	WT BIT	PP
5788-5845	120	10,000	1,000
5845-5960	150	10 to 14,000	1,400
5960-6021	125	12,000	1,400

6020-6070 Shale, black, carbonaceous, good petro oder, no fluorescent; looks wet; some salt, clear.

6070-6100 Shale, black, carbonaceous, good oder, no fluorescent; some salt, light gray, layered w/small crystales.

6020-6100 125 RPM 10,000 BIT WT 1,100 PP

6100-6110 Salt, light gray, layered, small crystales very poor, looks wet; little shale, black, carbonaceous, pyritic; fair oder; no fluorescent.

6110-6120 Salt, light gray to clear, some black shale, carbonaceous, a trace of anhydrite, white soft; fair oder; no fluorescent.

6120-6170 As above, no anhydrite.

[illegible], clear; [illegible], black, carbonaceous; [illegible], dark gray, dolomitic; fair odor; no fluorescent.

[illegible] Salt, clear; a little shale, black, carbonaceous; fair odor, no fluorescent.

[illegible] As above, shale increased to some.

[illegible] As above, w/trace of orange salt.

[illegible] As above, no orange salt.

[illegible]-6240 Salt, clear; a trace of shale, black, carbonaceous; fair odor, no fluorescent.

[illegible]-6270 Salt, light gray and shale, black, carbonaceous; a trace of anhydrite, white, soft; good odor, no fluorescent, looks wet.

6100-6270 125 RPM 10,000 BIT WT 10-1,400 PP

Changed from salt water to salt water mud @ 6150 10.8#. 54 Visc.

Drilling Time Correction

	Depth	Datum
Mineral Point	6346	-1278
Federal Bonnet	6665	-1504
BFU-1	6880	-827

[illegible]-6390 Shale, black, carbonaceous, fair odor; no fluorescent.

[illegible]-6390 Shale, black, carbonaceous; and salt, light gray; a trace of anhydrite, white, soft; good odor; no fluorescent; looks wet.

[illegible]-6410 Shales, black, carbonaceous; and salt, white; a trace of orange salt; a trace of limestone, light gray; good odor; no fluorescent.

[illegible]-6430 Shale, black, carbonaceous; a little salt, clear to gray; a trace of anhydrite, white, soft; looks wet; good odor, no fluorescent.

[illegible]-6460 Salt, light gray, some shale, black, carbonaceous; a little anhydrite, white, soft.

[illegible]-6470 Salt, light gray; a little shale, black, carbonaceous.

[illegible]-6480 No sample.

6372-6480 125 RPM 12,000 BIT WT 1,400 PP

Depth	Mud Wt	Visc
6390	10.7	39
6395	11.1	37
6405	11.1	37
6425	11.1	40

6480-6500 Salt, light gray to clear, slightly anhydritic; a little shale, black, carbonaceous.

[illegible]-6570 As above; shale, decreased to trace.

[illegible] gray to clear, anhydrite - trace, [illegible] slightly calcareous, argillaceous; a trace of limestone, [illegible] gray, hard, dense; a trace of siltstone, light gray, [illegible]

As above, salt and black shale from above.

6490-6660 125 RPM 12,000 BIT WT 1,400 PP

	MUD WT.	VISC.
6495	11.2	58
6570	11.2	59
6650	11.1	57
6655	11.1	40

Drilling Time Corr.

Mineral Point	Federal Rowknot
6635	6908
5072 KB	5161
-1565	-1745

[illegible] Shale, black, carbonaceous, pyritic; a little salt, clear; a trace of shale, red-brown, calcareous; a trace of anhydrite, gray, succrosic.

[illegible]-6670 Shale, black, carbonaceous, pyritic.

[illegible] Shale, black, carbonaceous, pyritic; a little salt, clear to orange.

[illegible] Shale, black, carbonaceous, pyritic; a trace of anhydrite, gray, succrosic, slightly dolomitic, silty.

[illegible]-6685 Shale, as above and salt, white, clear, a trace of orange salt; a little anhydrite, gray, succrosic and white; a trace of shale, red, silty, slightly calcareous.

6660-81 100 RPM 40,000 BIT WT 1,000 PP
6681-87 80 RPM 40,000 BIT WT 1,400 PP

	MUD WT	VISC.
6667	10.2	42
6680	10.0	42
6685	10.1	42
6687	10.1	42

[illegible]-6690 Shale, black, carbonaceous, very pyritic, a trace of siltstone, gray, [illegible] calcareous; a trace of anhydrite, white, cellilform structure, pyrite inclusions.

[illegible]-6705 As above w/trace of anhydrite, white, hard, w/cherty bands.

[illegible]-6710 As above; trace of light gray to brown cherty.

[illegible]-6715 Shale, black, carbonaceous, pyritic; a little anhydrite, white to gray, [illegible] succrosic, very poor; a trace of siltstone, gray, slightly calcareous, [illegible] of salt, clear to orange.

[illegible], anhydrite decreased to a trace.

Shale, black, carbonaceous, pyritic; a trace of salt, clear to orange; a trace of anhydrite, white, soft; a trace of siltstone, gray, slightly calcareous.

[illegible]-6721	110 RPM	35,000 BIT WT	1,000 PP
6721-6743	110 RPM	40,000 BIT WT	1,000 PP

MUD	WT	VISC
[illegible]97	10.2	45
6708	10.1	44
6715	10.1	42
6722	10.1	42
6740	10.1	42
6744	10.1	42

[illegible]-6710 Shale, black, carbonaceous, very pyritic; a trace of anhydrite, white, microcrystalline; a trace of shale, gray, dolomitic.

[illegible]-6718 Shale, black, carbonaceous, pyritic.

[illegible]-6730 Shale, black, carbonaceous, pyritic; a little siltstone, gray, slightly dolomitic; a trace of anhydrite, white, soft; a trace of salt, orange w/ pyrite inclusions.

[illegible]-6732 As above, very thin salt stringers in black shale.

[illegible]-6736 As above, trace of shale, red-brown.

6736-6740 Shale, black, carbonaceous, pyritic; a little siltstone, gray, slightly dolomitic; a trace of anhydrite, gray to white.

6745-45	90 RPM	30,000 BIT WT	1,000 PP
6745-55	90 RPM	40,000 BIT WT	1,000 PP
6755-84	90 RPM	40,000 BIT WT	200 to 1,000 PP

MUD	WT.	VISC
6745	9.75	66
6750	10.0	78
6760	7.3	150
6770	9.4	50
6782	9.6	62

[illegible]-6805 Shale, black, carbonaceous, pyritic; a trace of shale, red; a trace of siltstone, gray, shaly; a trace of anhydrite, gray, soft; some cavings of black shale and salt from above.

[illegible]-6810 Shale, black, pyritic, carbonaceous; a trace of limestone, light gray, fine crystalline; a trace of shale, red; a trace of anhydrite, gray, soft.

6810-6815 Shale, black, carbonaceous, pyritic; some dolomite, light gray, calcareous, fine crystalline to dense, very tight, no visible porosity; a trace of shale, red-brown; a trace of chert, light brown.

[illegible]-6825 As above w/trace of siltstone, light brown, slightly calcareous.

	WT.	VISC.
[illegible]	10.1	42
[illegible]	10.1	48
[illegible]	9.8	44
6800	9.0	48
6815	10.1	45
6819	10.3	44

[illegible] Dolomite, gray to light gray, fine crystalline, tight; a trace of shale, red; a trace of chert, light brown; shale, black, carbonaceous, pyritic and salt cavings.

[illegible] As above; a trace of siltstone, gray, slightly calcareous; no chert.

[illegible] As above, very poor sample.

[illegible] As above.

[illegible] Dolomite, light gray to brown-gray, fine crystalline; a trace of limestone, white, fine crystalline; black shale and salt cavings; a trace of chert, smokey to brown.

[illegible] As above, limestone increased to little.

	RPM	BIT WT.	P.P.
6784-6819	90	45,000	1,000
6819-6857	90	40,000	1,000
6857-6842	90	45,000	1,000
6842-6861	70	30-40,000	1,000

MUD	WT.	VISC.
6827	10.3	45
6833	10.2	44
6838	10.3	45
6849	10.2	50
6853	10.1	47

[illegible] Limestone, white to light gray, fine crystalline to chalky, no fluorescent, no porosity; some dolomite, light gray, calcareous, dense; a trace of shale, light brown, very calcareous; a little shale, black, carbonaceous, pyritic.

[illegible] As above w/little limestone, light brown, fine-medium crystalline, a little pin point porosity, slight stain and fluorescent? No cut.

[illegible] Limestone, light brown to white, fine crystalline to chalky; a little limestone, light brown, fine-medium crystalline; a little pin point porosity; a little shale, black, carbonaceous; pyritic.

[illegible] No sample.

[illegible] Limestone, white to buff, fine crystalline to dense to chalky, tight; a little dolomite, light brown, siliceous; some black shale, carbonaceous, pyritic.

[illegible]

[illegible]	[illegible]	[illegible]
[illegible]	10.1	[illegible]
[illegible]	10.1	[illegible]
[illegible]	10.2	[illegible]
[illegible]	10.3	[illegible]
6922	10.2	[illegible]

	[illegible]	[illegible] WT.	[illegible]
[illegible]-6902	70	45,000	1,000
[illegible]-6925	90	40,000	1,200

Generalized core description

Core #1 6925-6950, cut 25', recovered 25'

21' Limestone, light gray, fine crystalline to dense, tight, [illegible] (bracks), fractured slightly throughout, slight odor on fresh [illegible].
@ 6932' fractured w/black residue and fluorescent.
@ 6935' horizonal fracture w/slight pin point porosity.
@ 6943' stylolite w/calcite replacement up to [illegible]".
@ 6943½' 1" band of limestone, dark gray, filled w/breccia [illegible] hash.
@ 6944' slight stain on fracture
6944-46 broken up core. Connection at 6944'.

2½' Dolomite, dark gray, dense, tight, stylolitic fracture w/[illegible] sulphur residue, no fluorescent.

1½' Dolomite, dark gray, very good pin point porosity, bleeding [illegible] green oil - streaked odor, good light green-black fluorescent, [illegible] crystalline, soft, few random fractures filled w/dolomite, white.

[illegible]-6929 Limestone, light brownish gray, dense to fine crystalline, no fluorescent, fossiliferous cast, slight odor on fresh break, no porosity.

[illegible]-6930 As above, fossililiferous - brachiopods.

[illegible]-6931 Limestone, light brownish gray, fine-medium crystalline, no fluorescent, [illegible] porosity, fossiliferous - brachiopods.

[illegible]-6932 Limestone, as above except fine crystalline to dense.

[illegible]-6933 As above w/black residue on fractures.

[illegible]-6934 Limestone as above.

[illegible]-6935 Limestone, light brownish gray, dense to fine crystalline, tight, no fluorescent.

[illegible]-6937 As above w/black residue on fracture, slight light green fluorescent, [illegible] odor.

[illegible]-6938 As above, no residue.

[illegible]-6939 As above, a little black residue.

[illegible] as above, recrystallized [illegible]

Limestone, light brownish gray, fine crystalline to dense, fossiliferous, tight, no fluorescent.

As above w/a little black residue.

As above w/some black residue and white calcite near stylolites, no fluorescent.

Limestone, light brownish gray, fine crystalline to dense, tight, no fluorescent, fossiliferous.

Limestone, light gray, dense, very tight, few hairline fractures filled w/ black residue.

Dolomite, brownish gray, dense to fine crystalline, good odor, a little fluorescent on fracture surface.

Dolomite, gray to dark gray, fine crystalline, looks sugary, no visible [illegible]

As above and dolomite, dark gray, medium crystalline, very good pin point porosity, bleeding gas and green oil.

Dolomite, porosity as above, fracture 1/8" wide filled w/white dolomite, bleeding gas and oil as above.

DEPTH	RPM	BIT WT	P.P.
6925-6942	70	14,000	850
6942-6950	70	14/18,000	900

MUD	WT.	VISC.
6925	10.5	40
6935	10.4	37
6938	10.4	38
6948	10.2	48

Deviation survey @ 6902' = 5°

Generalized core description
Core #2 6950-6964, cut 14', recovered 14'.

5' Dolomite, light gray, fine crystalline to dense, calcareous, random fracture and stylolites w/black sulphur residue, no fluorescent, slight pin point porosity.

5' Dolomite, light gray to gray, fine crystalline to dense, slightly calcareous, fair pin point porosity, good odor, slight fluorescent, random fracture w/black sulphur residue and fair fluorescent odor.

6' Dolomite, gray, fine crystalline to dense, fair to good porosity, vugular and pin point, bleeding gas and brown oil, hairline fracture w/black sulphur residue. Good fluorescent, vugular up to ¼" diameter. Surface appears to be rather wet in part.

Dolomite, light gray, fine-medium crystalline, calcareous, black sulphur residue on fracture surface that has fair fluorescent, no porosity.

As above, no fracture.

As above, crinoid fossiliferous replaced w/white calcareous.

As above w/hairline fracture with black sulphur residue.

As above, no fracture.

Dolomite, light gray, fine crystalline to dense, horizonal fracture w/slight coating of black residue, a little fluorescent on residue, calcareous.

Dolomite, as above, random fractures w/black residue coating, crinoid replaced with calcareous.

Dolomite as above, no fracture, no fossiliferous, no fluorescent.

Dolomite, light gray, fine crystalline to dense, good pin point porosity, a portion coated w/black sulphur residue, good fluorescent, good odor, bleeding gas and oil.

Dolomite as above, fair pin point porosity.

As above, good pin point and vugular porosity.

As above, fair pin point porosity.

5859-64 80 RPM 14,000 BIT WT 1,000 PP

MUD	WT.	VISC.
6950	10.5	50
6964	10.2	48

Generalized Core Description
Core #3, 6964-6968½, cut 4½', recovered 4½'.

4½' Dolomite, light gray, fine crystalline, good pin point porosity, porosity has black sulphur residue, bleeding salty sulphur water, slight oil and gas cut, random fractures filled w/white dolomite, few horizonal fractures bleeding sulphur water and a little oil and gas.

Dolomite, light gray, good to very good pin point porosity, porosity coated w/black sulphur residue, fair fluorescent, bleeding salty sulphur water, slight oil and gas cut [illegible], good odor, fine crystalline.

6964-6968½ 80 RPM 10/14,000 BIT WT 1,000 PP

Core Barrel jammed @ 6968½'

DST #2, 6927-6968½ Open one hour. Fair blow air immediately, good after 10 minutes, decreased to fair after 15 minutes and remaining throughout. Recovered 690' slight gas and oil cut drilling fluid. IFP 70#; FFP 252#; Initial 2600/30 minutes; Final 2512/30 minutes; IHH 3745; FHH 3745.

Generalized Core Description
Core #4, 6978-7028, Cut 50', recovered 50'.

5' 6978-83 Dolomite, medium crystalline-dense, fair to good pin point porosity to vugular porosity, slight [illegible] odor on fresh break, w/inclusions of limestone, white, coarse, crystalline, random

hairline fracture w/black sulphur residue; fossiliferous
very poor streaks @ 6980-81 saturated w/black sulphur

13'	6985-98	Dolomite, light grey-gray, fine crystalline-dense, fair pin point porosity w/black sulphur residue, fossiliferous H_2S break, looks wet (sulphur water?).
5'	6998-7003	Dolomite, brownish grey, fine crystalline, tight to fair pin point and vugular porosity.
18'	7003-21	Dolomite, light gray to gray, fine crystalline, coarse crystalline in part, fine-good pin point porosity, vugular in part, black residue in porosity, streaks of H_2S odor on break, looks wet, tastes salty, irregular fractures and stylolites.
7'	7021-28	Dolomite, light gray, fine crystalline-dense, fair pin point porosity, some residue on porosity, H_2S odor on break, tastes salty, looks wet.
8'		No recovery.

3963-3978 No sample, drilling for junk in hole.

3978-3979 Dolomite, grey, fine crystalline, calcareous, fair pin point porosity, no fluorescent, slight stain of dead oil, black sulphur residue in porosity, slight H_2S odor, fossiliferous.

3979-3980 As above, no fossiliferous.

3980-3981 As above w/fossiliferous.

3981-3982 As above, slight vugular porosity.

3982-3985 As above w/good pin point and vugular porosity.

3983-3985 Dolomite, light grey, calcareous, fair pin point porosity, no fluorescent, no stain, fine-medium crystalline, black sulphur residue in porosity.

3985-3986 Dolomite, brownish grey, fine crystalline, slightly calcareous, no fluorescent, H_2S odor on fresh break, fair pin point to vugular porosity w/some staining of black sulphur.

3986-3987 As above w/some good vugular porosity.

3987-3992 As above, no vugular porosity.

3992-3994 Dolomite, light grey, medium-fine crystalline, slightly calcareous, no fluorescent, H_2S odor, fair pin point porosity w/black sulphur residue.

3994-3998 As above, some vugular porosity.

3998-3999 Dolomite, brownish grey, fine crystalline, calcareous, slight pin point porosity, mostly tight to empty.

[illegible]-7000 As above, tight, no porosity.

7000-7001 As above.

7001-7005 As above w/fair pin point to vugular porosity.

Dolomite, light gray to gray, fine to medium crystalline, fair [illegible] porosity, black sulphur residue on hairline fracture, H_2S odor on [illegible] fluorescent.

Dolomite, light gray to gray, fine to medium crystalline, good pin [illegible] vugular porosity, H_2S odor, tastes salty, a little black sulphur residue [illegible] some porosity, no fluorescent.

As above, a little inter-crystalline porosity.

As above, no vugular porosity, fair pin point and inter-crystalline porosity.

As above, looks wet.

As above, does not look wet.

As above w/good inter-crystalline to vugular porosity, no sulphur residue.

As above, porosity decreased to fair.

As above w/black sulphur residue in some porosity.

Dolomite, light gray to light brown-gray, fine crystalline to dense, fair pin point porosity, H_2S odor on break, no fluorescent, tastes salty, slightly calcareous, black sulphur on porosity.

As above w/good inter crystalline-vugular porosity, no black sulphur residue.

No Recovery.

80 RPM 14,000 BIT WT 7/800 PP

Dolomite, light gray, fine crystalline, no fluorescent, little point pin porosity, cavings of black shale.

Dolomite, light gray to white, fine crystalline to dense, no fluorescent, a little fair pin point porosity in crystalline part, caving of black shale.

As above, porosity decreased to a trace.

Dolomite, white-light gray, fine crystalline, no fluorescent, fair to good pin point and vugular porosity, a trace of light brown chert.

7056-7086 86 RPM 40,000 BIT WT 1,000 PP

MUD	WT.	VISC.
7061	10.3	44
7055	10.5	49
7078	10.3	48
7086	10.5	47

DST #5, 6978-7086, Open one hour. Strong blow air immediately, decreased slowly to fair in 20', decreased to dead in 55'. Recovered 5900' fluid; 300' muddy water
5600' sulphur water } Slightly salty
grading from black to clear

IFP 1000, FFP 2850, INITIAL 2850/30, FINAL 2850/30, IHH 3925, FHH 3905.

... gray to white, ... crystalline ... in vugulars, fair pin point and vugular porosity ... shale.

As above, becoming more gray to brownish gray in part.

Dolomite, light brownish gray, fine crystalline, fair pin point porosity in part; some dolomite, light gray to white, fine crystalline to dense, fair pin point to vagular porosity in part.

-7200 - Dolomite, light gray to white, dense to fine crystalline, slight pin point porosity and vagular porosity in part; and dolomite, light brownish gray, fine crystalline, tight; little cavings of black shale.

7086-7200 85 RPM 14,000 BIT WT 1,000 PP

7110 MUD 10.8WT 45 VISC.

Dolomite, light brownish gray, fine crystalline, slight pin point porosity in part; some dolomite, white to light gray, dense, soft; no fluorescence.

As above, a trace of siliceous dolomite or chert, white (looks very much like white, soft, dolomite).

As above, no chert.

-7270 Dolomite, light brownish gray, fine crystalline, some dolomite, light gray to brown, fine crystalline to dense, slightly calcareous.

Dolomite, dark brown to gray, fine crystalline, silty in part, tight, trace of shale, light gray-green, waxy.

TOTAL DEPTH 7288

DEC 1 8 1958

MEMORANDUM FOR FILE
December 22, 1958

RE: Pure Oil Company
Well #1, Mineral Point Unit
NE¼, SE¼, Sec.7, T26S, R 18E
Grand County, Utah

This well has been properly plugged and abandoned and a regulation marker erected in place. However, the rig still lies on location. The location has not yet been cleared of debris and properly leveled off.

C. Hauptmann, Pet. Engineer

CH/cp

Make SWR and check later for cleared loc. H
8-24-59

ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD. PHONE 243-3044 GRAND JUNCTION, COLORADO 81501

ZONE OF INTEREST NO. 1

INTERVAL: From 5707 To 5718

DRILL RATE: Abv 5 Thru 2 Below 10

MUD GAS-CHROMATOGRAPH DATA

	Total Gas	C1	C2	C3	C4-i	C4-n	C5	He	
Before	20	2500	400	-					
During	150	30M	6M	1200	100	-	-		
After	80	18M	2880	450	50	-	-		

Type gas increase: Gradual ☐ Sharp ☒

Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐

CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = 3 Sensitivity: Poor ☐ Fair ☐ Good ☒

FLUO: Mineral ☐ Even ☐ Spotty ☐
None ☒ % in total sample
Poor ☐
Fair ☐ % in show lithology
Good ☐ COLOR:

CUT: None ☒ Streaming
Poor ☐ Slow ☐
Fair ☐ Mod ☐
Good ☐ Fast ☐
COLOR:

STAIN: None ☒ Poor ☐ Fair ☐ Good ☐ Live ☐ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☐ Dk. ☐

POROSITY: Poor ☐ Fair ☐ Good ☒ Kind INTERGRANDULAR FRCTURES

LITHOLOGY SHALE BLACK CARB BLEEDING GAS

SAMPLE QUALITY FAIR

NOTIFIED C.GRITZ **REMARKS:** "G" CLASTIC ZONE OF THE PARADOX SALT

ZONE DESCRIBED BY: J.CLUTTER